

# Design and Development of Vertical Axis Wind Turbine

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**Abstract:** *This paper is related to design and development of vertical axis wind turbine. This is a part of final year project of department of mechanical engineering, Adsul Technical Campus, Chas. The design and development of vertical axis wind turbines have gained significant attention in recent years due to their potential to harness wind energy in urban and remote areas. This study aims to explore the various aspects of designing and developing a vertical axis wind turbine, including the aerodynamic considerations, structural design, and material selection. By optimizing the design and enhancing the efficiency of vertical axis wind turbines, this research contributes to the advancement of sustainable energy solutions. Moreover, the integration of vertical axis wind turbines into urban landscapes presents a promising opportunity for decentralized power generation. The findings of this study have the potential to impact the renewable energy sector and address the growing demand for clean energy sources.*

**Keywords:** Development, Design, Vertical Axis Wind Turbine, Aerodynamic